

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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JUL 3 0 2002

U.S. PATENT & TRADEMARK OFFICE

Application Number

09/840,861

Filing Date

January 3, 2001

First Named Inventor

Daniel DUPRET et al.

Art Unit

Unassigned

Examiner Name

Unassigned

Sheet

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of

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Attorney Docket Number

58763.000013

U.S. PATENT DOCUMENTS

*Examiner Initials	Cite No.	DOCUMENT NUMBER Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
SM	1	US- 5605793	02-25-1997	Stemmer	
	2	US- 5830721	11-03-1998	Stemmer et al.	
	3	US- 5837458	11-17-1998	Minshull et al.	RECEIVED
	4	US- 6117679	09-12-2000	Stemmer	JUL 31 2002
	5	US- 6132970	10-17-2000	Stemmer	
	6	US- 6153410	11-28-2000	Arnold et al.	TECH CENTER 1600/2000
	7	US- 6165793	12-26-2000	Stemmer	
	8	US- 6171820	01-09-2001	Short	
	9	US- 6177263	01-23-2001	Arnold et al.	
	10	US- 6180406	01-30-2001	Stemmer	
	11	US- 6238884	05-29-2001	Short et al.	
	12	US- 6251674	06-26-2001	Tobin et al.	
	13	US- 6277638	08-21-2001	Stemmer	
	14	US- 6287861	09-11-2001	Stemmer et al.	
	15	US- 6287862	09-11-2001	delCardayre et al.	
	16	US- 6291242	09-18-2001	Stemmer	
	17	US- 6297053	10-02-2001	Stemmer	
	18	US- 6303344	10-16-2001	Patten et al.	
	19	US- 6309883	10-30-2001	Minshull et al.	
	20	US- 20010039014	11-08-2001	Bass et al.	
	21	US- 6319713	11-20-2001	Patten et al.	
	22	US- 6319714	11-20-2001	Crameri et al.	

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23	US- 6322969	11-27-2001	Stull et al.	JUL 31 2002
24	US- 6323030	11-27-2001	Stemmer	TECH CENTER 1600/2000
25	US- 6326204	12-04-2001	delCardayre et al.	
26	US- 20010049104	12-06-2001	Stemmer et al.	
27	US- 6335160	01-01-2002	Patten et al.	
28	US- 6335198	01-01-2002	delCardayre et al.	
29	US- 6337186	01-08-2002	Krebber	
30	US- 6344356	02-05-2002	Stemmer	
31	US- 6358740	03-19-2002	Patten et al.	
32	US- 6361974	03-26-2002	Short et al.	
33	US- 6365377	04-02-2002	Patten et al.	
34	US- 6365408	04-02-2002	Stemmer	
35	US- 6368861	04-09-2002	Crameri et al.	
36	US- 6376246	04-23-2002	Crameri et al.	

FOREIGN PATENT DOCUMENTS

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		Country Code:	Number - Kind Code (if known)				YES	NO
	37.	WO	95/22625	08-24-1995	Stemmer et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	38.	EP	0752008	01-08-1997	Stemmer et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	39.	WO	97/20078	06-05-1997	Stemmer et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	40.	WO	97/22715	06-06-1997	Henning		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	41.	WO	98/15567	04-16-1998	Strizhov et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	42.	WO	98/27230	06-25-1998	Fitts et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	43.	WO	98/32845	07-30-1998	Soserlind et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	44.	JP	11075849	03-23-1999	Satoko	Abstract only	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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		Country Code:	Number - Kind Code (if known)				YES	NO
SA	45.	FR	2782323	02-18-2000	Dupret et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	46.	WO	00/58517	10-05-2000	Short et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	47.	WO	00/77262	12-21-2000	Short		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	48.	WO	01/23401	04-05-2001	Welch et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	49.	WO	01/27160	04-19-2001	Huse et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	50.	WO	01/29211	04-26-2001	Coco et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	51.	WO	01/29212	04-26-2001	Arendsdorf et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	52.	WO	01/42509	06-14-2001	Cheo et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	53.	WO	01/51663	07-19-2001	Bass et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	54.	WO	01/64864	09-07-2001	Affholter et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	55.	WO	01/70947	09-27-2001	Carr et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	56.	WO	01/73000	10-04-2001	Stemmer et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	57.	WO	01/90346	11-29-2001	Wang et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	58.	WO	01/96551	12-20-2001	Short		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	59.	WO	02/04629	01-17-2002	Delcardayre et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	60.	WO	02/06469	01-24-2002	Coco et al.		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	61.	EP	1138763	02-27-2002	Stemmer		<input checked="" type="checkbox"/>	<input type="checkbox"/>

NON-PATENT LITERATURE DOCUMENTS

*Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	TRANSLATION	
			YES	NO
		Rauwendal et al.		
	62.	Weisberg, Edward P., "Simultaneous Mutagenesis of Multiple Sites: Application of the Ligase Chain Reaction Using PCR Products Instead of Oligonucleotides, Biotechniques, Vo. 15, No. 1, July 1993, pp.172-178	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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			YES	NO
Sh	63.	STEMMER, W. P. C., "DNA shuffling by random fragmentation and reassembly: In vitro recombination for molecular evolution", Proc. Natl. Acad. Sci. USA, Vol. 91, pp. 10747-10751, October 1994	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	64.	PUNNONEN, J. et al., "Molecular breeding by DNA shuffling", Science & Medicine, pp. 38-47, March/April 2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	65.	COCO, W. M. et al., "DNA shuffling method for generating highly recombined genes evolved enzymes", Nature Biotechnology, Vol. 15, April 2001, pp. 354-358	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	66.	PELLETIER, J., "A rachitt for our toolbox", Nature Biotechnology, Vol. 19, No. 4, April 2001, pp. 314-315	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	67.	CRAMERI, A. et al., "DNA shuffling of a family of genes from diverse species accelerates directed evolution", Nature, Vol. 391, January 1998, pp. 288-291	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	68.	NESS, J. E. et al., "DNA shuffling of subgenomic sequences of subtilisin", Nature Biotechnology, Vol. 17, September 1999, pp. 893-896	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	69.	CHANG, C. J. et al., "Evolution of a cytokine using DNA family shuffling", Nature Biotechnology, Vol. 17, August 1999, pp. 793-797	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	70.	MINSHULL, J. et al., "Protein evolution by molecular breeding", Current Opinion in Chemical Biology, 1999, Vol. 3, pp. 284-290	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	71.	HARAYAMA, S. "Artificial evolution by DNA shuffling", Tibtech, February 1998, Vol. 16, pp. 76-82	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	72.	KIRTZMAN, A., "Advances in directed protein evolution by recursive genetic recombination: applications to therapeutic proteins", Current Opinion in Biotechnology, 2001, Vol. 12, pp. 361-370	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	73.	Zhao, H. et al., "Optimizing of DNA Shuffling for High Fidelity Recombination", Nucleic Acids Research, Vol. 25, No. 6, pp. 1307-1308, (1997)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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			YES	NO
SA	74.	Lyamichev, V. et al., "Polymorphism Identification and Quantitative Detection of Genomic DNA by Invasive Cleavage of Oligonucleotide Probes", Nature Biotechnology, Vol. 17, pp. 292-296 (1999)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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